

NEUTRAL-SUPPORTED POWER CABLE ASSEMBLIES WITH

WEATHER-RESISTANT EXTRUDED INSULATION RATED 600 VOLTS

Publication # ICEA S-76-474-2000

© 2000 by

INSULATED CABLE ENGINEERS ASSOCIATION, Inc.

STANDARD FOR

NEUTRAL-SUPPORTED POWER CABLE ASSEMBLIES WITH WEATHER-RESISTANT EXTRUDED INSULATION RATED 600 VOLTS

Publication #ICEA S-76-474-2000

Published By
INSULATED CABLE ENGINEERS ASSOCIATION, Inc.
Post Office Box 440
South Yarmouth, Massachusetts 02664, U.S.A.

Approved June 8, 2000 by INSULATED CABLE ENGINEERS ASSOCIATION, Inc.

Copyright 2000 by the Insulated Cable Engineers Association, Inc. All rights including translation into other languages, reserved under the Universal Copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works, and the international and Pan American Copyright Conventions.

FOREWORD

ICEA publications are adopted in the public interest and are designed to eliminate misunderstanding between the manufacturer and user and to assist the user in selecting and obtaining proper products for his particular need. Existence of an ICEA publication does not in any respect preclude the manufacture or use of products not conforming to the publication.

The user of this publication is cautioned to observe any applicable health or safety regulations and rules relative to the manufacture and use of cable made in conformity with this publication. This publication hereafter assumes that manufacture, testing, installation and maintenance of cables defined by this publication will be performed only by properly trained personnel using suitable equipment.

Questions of interpretation of ICEA publications can only be accepted in writing at Headquarters by the Secretary, and the reply shall be provided in writing.

Suggestions for improvements in this publication are welcome, and should be sent to ICEA at the address below.

INSULATED CABLE ENGINEERS ASSOCIATION, INC.
Post Office Box 440
South Yarmouth, MA 02664 USA
Telephone: (508) 394-4424

Copies of this publication may be obtained from:

Global Engineering Documents
15 Inverness Way East
Englewood, CA 80112 USA
Telephone: (800) 854-7179 or (303) 397-7956
E Mail: global@his.com
http://global.his.com

TABLE OF CONTENTS

Section		Page
PART I.	GENERAL 1.1 Scope 1.2 Assemblies 1.3 Design Options 1.4 Operating Conditions 1.4.1 Normal Service Operation Temperature 1.4.2 Emergency Overload Operation Temperature 1.4.3 Short Circuit Operation Temperature 1.4.4 Rated Voltage 1.5 Testing and Test Frequency 1.6 Test Methods	1 1 2 2 2 2 2 2 3 3
PART 2.	REQUIREMENTS 2.0 General 2.1 Physical and Electrical Properties 2.1.1 Aluminum 2.1.2 Copper 2.2 Phase Conductors 2.2.1 Aluminum Phase Conductors 2.2.2 Copper Phase Conductors 2.3 Neutral Conductors 2.3.1 Aluminum Alloy 6201-T81 2.3.2 Aluminum 1350 2.3.3 Aluminum Conductor, Coated-Steel Reinforced	5 5 5 6 6 6 6 7 7
	(ACSR) 2.3.4 Aluminum Conductor, Aluminum-Clad Steel Reinforced (ACSR/AW) 2.3.5 Hard Drawn Copper 2.3.6 Copper and Copper-Clad Steel Composite 2.3.7 Coated Steel Wires 2.4 Conductor Size Units 2.5 Bare Neutral Conductor Size Determination 2.6 Conductor Diameter 2.7 1 Options	7 7 7 7 8 8 8